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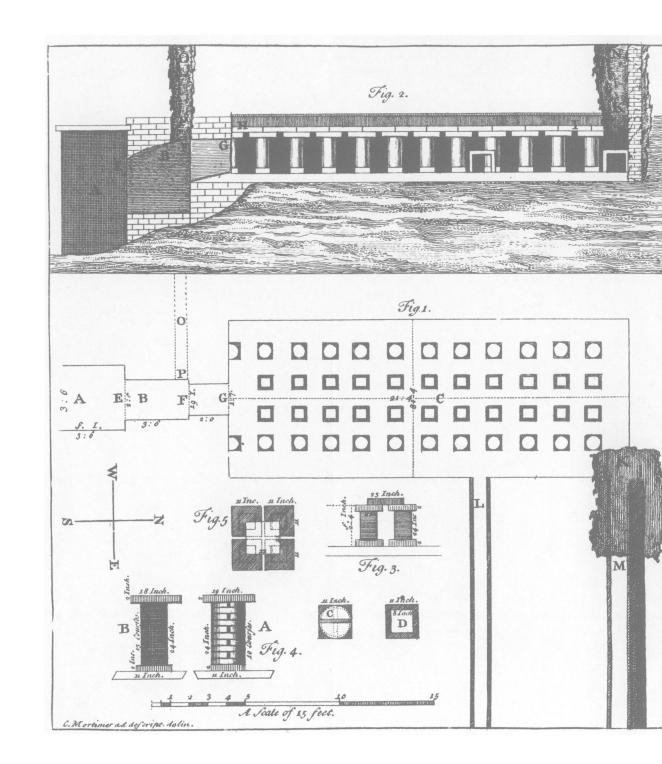
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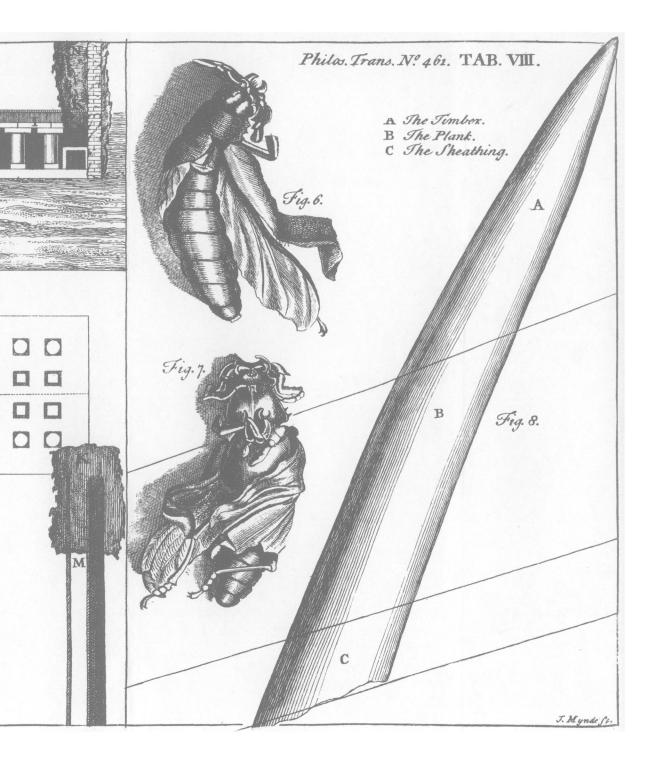
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XXX. Accounts of a Capricorn Beetle, found alive in a Cavity within a found Piece of Wood, and of the Horn of a Fish struck feveral Inches into the Side of a Ship; by C. Mortimer, M. D. Secr. R. S.

BOUT Michaelmas 1728. I went to Portf-mouth with some Friends, where having taken a View of his MAJESTY's Yard and Docks for building Ships of War; and fatisfied my Curiofity in examining several curious Contrivances used in Naval Architecture; Mr. Bankley, the Clerk of the Survey. invited me to his House, where he shewed me the Infect as represented in TAB. VIII. Fig. 6. and 7. The People of the Yard were much alarmed at it, none knowing what to make of it; and all imagining it was venomous. On opening the Piece of Wood, (which was tied together with a Packthread) I found this Animal yet alive, and moving in a large Cavity in the Middle of the Wood, which appeared otherwise found, having no visible Entrance into it. This Beetle, being turned out upon a Sheet of Paper, crawled about upon it. Mr. Bankley gave me the following Account of it: "This Insect was found August 26. 1728. " in splitting a Piece of Exotic Wood into Two " Pieces, cut across the Grain 4 \frac{5}{8} Inches thick, taken " up in the Hold of his MAJESTY'S Ship Bredah, " when in the Dock at Portsmouth, after her Return " from the West-Indies: It lived upwards of a Month " afterwards. The Hole in which it was nourished, 5 T 2

" was 5 Inches deep, and 2 \(\frac{1}{4}\) Inches by I \(\frac{1}{4}\) Inches broad, in the great Piece; 2 Inches deep, and 2 \(\frac{1}{4}\)

"Inches by 1 \(\frac{1}{4}\) Inch broad, in the smaller Piece.

" There was not the least Sign of any Defect on the

" Outside of the Wood, but it appeared very fair and

" found; the Inside was porous, having a Grain like

" Cedar, but in Colour not unlike yellow Sanders."

On Examination, I found this Infect to be a fort of Scarabaus called Capricornus from its long Horns; which in this were very much crumpled, and partly broken off against the Wood, in its Confinement: Its Wings were likewise crumpled on the same Ac-The Females of these Insects usually lay their Eggs in the Crevices of the Bark of Trees: So it is probable, that as foon as this Infect was hatched in Form of a Worm, it gnawed its Way through the Bark into the Wood; and that afterwards the Hole it had made in the Wood, closed towards the Outfide; and the Worm, still continuing to gnaw deeper, formed the large Cavity; and then taking its perfect Form of a Beetle, remained in that hollow Place. where the Sap of the Tree arising, might have supplied it with Nourishment, and even Air; since it is known, by various Experiments, that Air will infinuate itself, where-ever such Fluids, as contain Air in them, can penetrate.

I have seen in the magnificent Museum of Sir Hans Sloane, Bart. a Piece of Wood, sound without, having a Cavity within, wherein was found alive a sort of Beetle, but I think of a different Species. It came from Jamaica, if I remember right.

At the same time, that curious Gentleman Mr. Bankley shewed me the Horn of a Fish that had penetrated above 8 Inches into the Timber of a Ship [see

TAB. VIII. Fig. 8.]; and gave me the following Relation of it: "His MAJESTY's Ship Leopard, having been at the West-Indies, and on the Coast of "Guiney, was ordered by Warrant from the Ho-" nourable Navy-Board, dated Aug. 18. 1725. to be " cleaned and refitted at Portsmouth for Channel-" Service: Pursuant thereto, she was put into the " great Stone-dock; and, in stripping off her Sheath-"ing, the Shipwrights found fomething that was " uncommon in her Bottom, about 8 Feet from her "Keel, just before the Fore-mast; which they search-" ing into, found the Bone or Part of the Horn of " a Fish of the Figure here described; the Outside " rough, not unlike Seal-skin; and the End, where " it was broken off, shewed itself like coarse Ivory. "The Fish is supposed to have followed the Ship, " when under Sail, because the sharp End of the " Horn pointed toward the Bow: It penetrated with " that Swiftness or Strength, that it went through " the Sheathing 1 Inch thick, the Plank 3 Inches " thick, and into the Timber 4 1 Inches."

With what prodigious Force must this Fish have moved? For had it met the Ship, the Motion of the Ship would have assisted the Penetration of the Horn; but the Direction of it pointing from the Stern towards the Head, shews that the Fish struck against the Ship, either while at Anchor; or that it overtook it, while under Sail; in which case the Force of the Fish must have been still greater; and this was probably the Case, because nobody in the Ship remembered the Shock. Several able Workmen on the Spet assured me, that, with a Hammer of a Quarter of an Hundred Weight, they could not drive in a Pin of Iron, of the same Form and Size, into such

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fort of Wood, and to the same Depth, in less than Eight or Nine Strokes.

XXXI. Abstracts of the original Papers communicated to the ROYAL SOCIETY by Sigismond Augustus Frobenius, M. D. concerning his Spiritus Vini Æthereus: Collected by C. Mortimer, M. D. Secr. R. S.

R. Frobenius being dead, and some learned Chemists at Paris, in Germany, and in Italy, having endeavoured, in various Manners, and with different Contrivances, to make this Athereal Spirit; I thought it would be acceptable to the Curious in England, to give them an Abstract of the Three Papers the Doctor communicated to the ROYAL Society concerning his Spiritus Vini Æthereus. The First he gave in on Feb. 19. 1729-30. along with what is printed in N° 413. p. 283. of these Transactions, but was defired by the Author not to be published at that Time. In this Paper he says, you must " take of "Oil of Vitriol, and the highest rectified Spirit of Wine, "equal Parts by Weight, not by Measure: That the "Oil of Vitriol was to be poured by little and little " into the Spirit of Wine, because they will grow hot "upon mixing; that they should be shaken often, that "they may mix thoroughly; then to be digested gently "in a glass Retort, and a large Receiver to be applied " and luted on, lest the subtile Spirits should fly away: "Then distil them in an Athanor, in gentle Digestion, "for Three Days; and pour back the distilled Liquor,